EXECUTIVE SUMMARY

Policies to lower the rising cesarean section rate in Brazil are hotly debated. Brazil has one of the highest cesarean birth rates in the world, with 55.6% of all births delivered by cesarean section. Although cesarean sections can be life-saving procedures when medically indicated, unnecessary cesareans impose significant health risks to both mother and baby. Government officials and scholars assert that the Brazilian "cesarean epidemic" does not seem to be related to changes in obstetric risk, but to socioeconomic and cultural factors. In my thesis, I use a mixed-methods approach to analyze decision-making in childbirth to investigate what influences culminate in the final form of delivery in São Paulo, Brazil. My interviews revealed that many women received unwanted cesarean sections, whereas the physicians I spoke with claimed that women were demanding more cesarean sections. Data analysis of the national survey Birth in Brazil clarifies this contradiction by showing that the majority of women prefer natural birth at the beginning of pregnancy, but are not always included in decisions about mode of delivery. My findings indicate that decisions to undergo cesarean sections often go against the initial desires of women and are most strongly driven by physicians. Current policies by Brazil's Ministry of Health largely focus on informing consumers about the risks associated with different forms of childbirth deliveries. However, such approaches do not address the apparent tension between women and physicians in deciding the final form of delivery. To lower Brazil's cesarean birth rate, future policies should reduce systematic incentives that encourage physicians to perform unnecessary cesareans, humanize obstetric medical education, and allow women to hold physicians accountable through activism. This research presents new evidence and policy recommendations that will help MaternaMente and other women's organizations defend reproductive health rights and improve childbirth outcomes for Brazilian women.
INTRODUCTION

Despite recent policy efforts by Brazil's Ministry of Health to reduce the prevalence of unnecessary cesarean sections, the rate in Brazil still remains among the highest in the world. The rise of cesareans in Brazil presents a complex paradox in which technology has entered into a previously struggling health system to improve outcomes, but has instead created new health problems due to its pervasive overuse. A cesarean section, defined as the surgical procedure to deliver a baby through an incision in the mother's abdomen and uterus, is one of the most common forms of technological intervention used in childbirth.\(^1\) Public health scholarship suggests that reasons for the high rate of cesareans do not seem to be related to changes in obstetric risk, but to socioeconomic and cultural factors.\(^2\) According to a study by the 2005 WHO Global Survey, the overuse of cesareans is associated with an increased risk of severe maternal and neonatal morbidity and mortality.\(^3\) Given this scientific evidence and that the majority of Brazilian women prefer natural birth, understanding how decisions about form of birth are made is crucial to both empowering women and improving health outcomes.

In my thesis, I analyze decision-making in childbirth to examine the specific elements that influence Brazilian birthing practices and to better inform policies to lower the rate of unnecessary cesarean sections. Much of my research in Brazil was done with a community partner organization, MaternaMente, a childbirth activist group that holds monthly meetings for women in São Paulo to discuss issues related to pregnancy and childbirth. The mission of MaternaMente is "to advance the political and academic debate and support the formulation of reproductive health care policies to promote women's autonomy with respect to scientific evidence and the childbirth guidelines of the World Health Organization."\(^4\) MaternaMente also provides information for women seeking evidence-based answers for everything related to the

\(^1\) Staff MC. C-section. *Mayo Clinic*. 2015.
health and well-being of both mother and baby. Historically, MaternaMente has participated in demonstrations in defense of women's rights and improvements in delivery care, aiming to shape policies by Brazil's Ministry of Health. During my time in São Paulo, I attended multiple MaternaMente meetings and was able to conduct my research under the generous guidance of Deborah Delage and Denise Niy, the founders of MaternaMente. The implications of my thesis research can help MaternaMente achieve its mission of developing and shaping policies to defend the reproductive health rights of women and promote women's autonomy in childbirth.

METHODOLOGY

My thesis research draws on a mixed-methods approach to investigate the influences that shape the final form of delivery in Brazil. My qualitative research engaged with the personal experiences of individuals, which involved fifteen in-depth interviews with mothers, OB-GYNs, hospital administrators, midwives, doulas, childbirth activists, and maternal health researchers. These conversations illuminated how people speak about maternal health in Brazil and the various perspectives involved. My quantitative research presented the population-wide view and analyzed data to reveal the cultural and medical conditions that lead to Brazil's particular trend of cesarean sections. I used an epidemiological analysis with the databank Birth in Brazil, which collected data from over 10,000 mothers in Southeastern Brazil, including the city of São Paulo. Some of the questions that guided my investigation include: What type of birth delivery do women prefer? What factors influence or change that preference throughout pregnancy? How do women and physicians decide on the final form of delivery?

With the Birth in Brazil data, I reconstructed the process of decision-making from the beginning of pregnancy until childbirth, investigating certain influences that culminate in the final form of childbirth delivery (see Figure 1 on page 5). While stratifying by public or private health system, I described the sociodemographic and clinical characteristics of the women, the factors influencing their initial preference for birth, and the trajectory for type of birth delivery.

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Through this analysis, I identified a sample of women who desired natural birth at the end of pregnancy but still received cesarean sections. In order to understand what factors influenced women to receive a cesarean section against their wishes, I then analyzed their cesarean section indications and the demographic and prenatal variables associated with their final mode of birth delivery. Ultimately, my quantitative data analysis had two main objectives: 1) to identify what factors influence the process of decision-making for the form of delivery and 2) to identify what factors are associated with a final birth outcome that contradicts women's desires.

**MAJOR FINDINGS**

My findings show that decisions to undergo cesarean sections often go against the initial desires of women and are most strongly driven by physicians. Physicians, who are decisive in determining the final form of delivery, are systematically encouraged to perform more cesareans due to financial incentive, convenience, and their medical training. The physicians I interviewed stressed that the medical system is merely responding to women's demands for cesarean sections, citing the "culture of cesareans" in which more women are requesting cesareans for reduced pain, modern technological care, and intact vaginas. In contrast, the mothers I interviewed revealed stories of coercion into cesarean sections by their physicians. Themes of patient humiliation and disrespect during childbirth emerged from the mothers' stories. Throughout my interviews, I discovered that many women came to MaternaMente not only to ask questions about childbirth, but also to join a community and feel empowered over their own childbirth.

My epidemiological analysis confirms this tension between patient and physician perspectives at a population-wide level in Southeastern Brazil. The majority of women (71.8%) preferred normal birth at the beginning of pregnancy, yet a significant proportion of women received a cesarean section against their desires. For women who decided on natural birth at the end of pregnancy, 37.2% in the private system and 16.7% in the public system still received cesarean sections. Figure 1 illustrates decision-making from beginning to end of pregnancy.

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Ultimately, these findings can inform the debate about whether the final decision on type of birth delivery belongs to the physician or mother. In occasions with clear clinical indications, cesarean sections are undeniably necessary for the mother and baby. However, while decisions should be driven by the physician's medical expertise, they should also be informed by the patient's desires. Nonetheless, almost one-third of decisions about the type of delivery were solely made by the physician. The results show that if a woman is involved in deciding the final type of delivery, she is significantly more likely to receive a normal birth than a cesarean. This suggests that in order to lower the rate of cesarean sections, women should be included in the decision-making process of her own childbirth. Policies aimed at informing women about the

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*Red area indicates women whose mode of birth contradicted their decision at end of pregnancy.

CS w/o labor: cesarean section pre-labor (elective cesarean); CS w/ labor: cesarean section intrapartum; Normal birth refers to natural vaginal delivery

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risks and benefits of different types of deliveries should still be supported, but those policies will continue to be ineffective if women are not able to participate in their own childbirth decisions.

**KEY RECOMMENDATIONS**

Although various dimensions are required to reduce Brazil's "cesarean epidemic," I highlight certain policy goals that MaternaMente should advance in order to achieve its mission of shaping policies to defend the reproductive health rights of women. These action points can be incorporated into MaternaMente's monthly discussions with women and also the documents that they draft for Brazil's Ministry of Health policymakers at public hearings and consultations.

*Support current policies that inform women about childbirth, but push for more holistic policies*

Current policies such as NR 368 and the Project Birth is Normal campaign may help women who are uninformed about childbirth, but are not enough to lower the cesarean section rate. These policies assume that if women are better informed, they would prefer natural births. Ironically, women who received guidance about the risks of pregnancy during prenatal care were significantly more likely to receive cesarean sections. Additionally, women are not always included in childbirth decisions--almost one-third of all decisions for birth deliveries exclude mothers, and are made solely by the physician. Providing women with information while they have no power to make decisions about delivery is ineffective. Future policies should continue informing women about the risks of cesarean sections, but also ensure that physicians' decisions in childbirth better align with evidence-based practices, which indicate that cesarean sections should only be used if vaginal delivery is not possible.

*Reduce the systematic incentives that encourage physicians to perform unnecessary cesareans*

Future policies should reduce the economic and convenience incentives that encourage physicians to perform unnecessary cesarean sections. Cesarean sections are easily scheduled and require less time than natural births, which allow physicians in the private system to better organize their schedules, assist more deliveries, and earn more money. If the private system were
structured so that different health care professionals attended prenatal care and birth, there would be less incentive for a physician to schedule cesarean sections for convenience. Similarly, if health insurers contracted physicians per time shift instead of delivery, this would decrease the incentives for physicians to speed up deliveries and use unnecessary technological interventions.

There are no economic incentives for physicians to assist natural deliveries, which may be the biggest obstacle. Additional research should be prioritized to determine the most effective approach for reducing physicians' cesarean section incentives, especially in the private health system, where physicians are paid by insurers instead of by the government.

**Humanize obstetric medical education**

Obstetric medical education should include a more humanized approach. Currently, obstetric training focuses on the technical aspects of childbirth with routine use of interventions, but lacks the sensitivity required for respectful treatment of women. Even in clinical training, emphasis is placed on memorizing and applying scientific concepts rather than communication with the patient. A study analyzing obstetric training during medical school in Brazil shows that the dominant model is based on a pathological approach to birthing, which frames pregnancy as a disease to be treated and fixed. During training, medical students are not required to consult their patients about interventions. To address the disrespectful and harmful childbirth care physicians are trained to provide, a humanized model of obstetrics should include undergraduate courses on the use of evidence-based medicine, respect for women's rights, and an understanding of the various cultural, psychological, and emotional factors that affect women during childbirth. In this way, newly trained physicians may begin to change the culture surrounding the practice of obstetrics in Brazil by valuing the physiology of childbirth and reducing the amount of unnecessary cesarean sections. MaternaMente should push Brazil's Ministry of Health to create policies that restructure obstetric medical education so that women are respected and included in their childbirth decisions.

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Allow women to hold physicians accountable through activism

If physicians are to follow a more humanized model of obstetrics, policies should facilitate the ability of women to hold physicians responsible for their actions during childbirth. Recently released policies such as ANS 368 are taking steps to increase visibility and accountability by publicly disclosing cesarean rates; nonetheless, physicians can easily misreport their rates, rendering the policy largely ineffective. In response to obstetric violence, the Humanization of Childbirth movement has increased public discussions on the rising cesarean rate in Brazil. The movement aims to return the role of childbirth to women, emphasizing respect for the physiology of pregnancy and childbirth. MaternaMente should encourage women's participation in activism by communicating with the social movement through demonstrations and conventions. MaternaMente should push Brazil's Ministry of Health to invite all relevant parties--mothers, physicians, midwives, doulas, researchers, activists, and policymakers--to participate. A change in Brazil's rising cesarean rates require woman to become empowered so that they can engage with physicians and the policymaking process themselves.

CONCLUSION

Changes to the Brazilian model of care during delivery have become subject of recent research and policies. My thesis research adds to that conversation by showing that decisions to undergo cesarean sections are most strongly driven by physicians, and that systematic changes are necessary to ensure that women have more autonomy in the decision-making process of their own childbirth. The implications of my thesis research hope to help MaternaMente achieve its mission of shaping policies to defend the reproductive health rights of women and improve childbirth outcomes for Brazilian women.
BIBLIOGRAPHY


